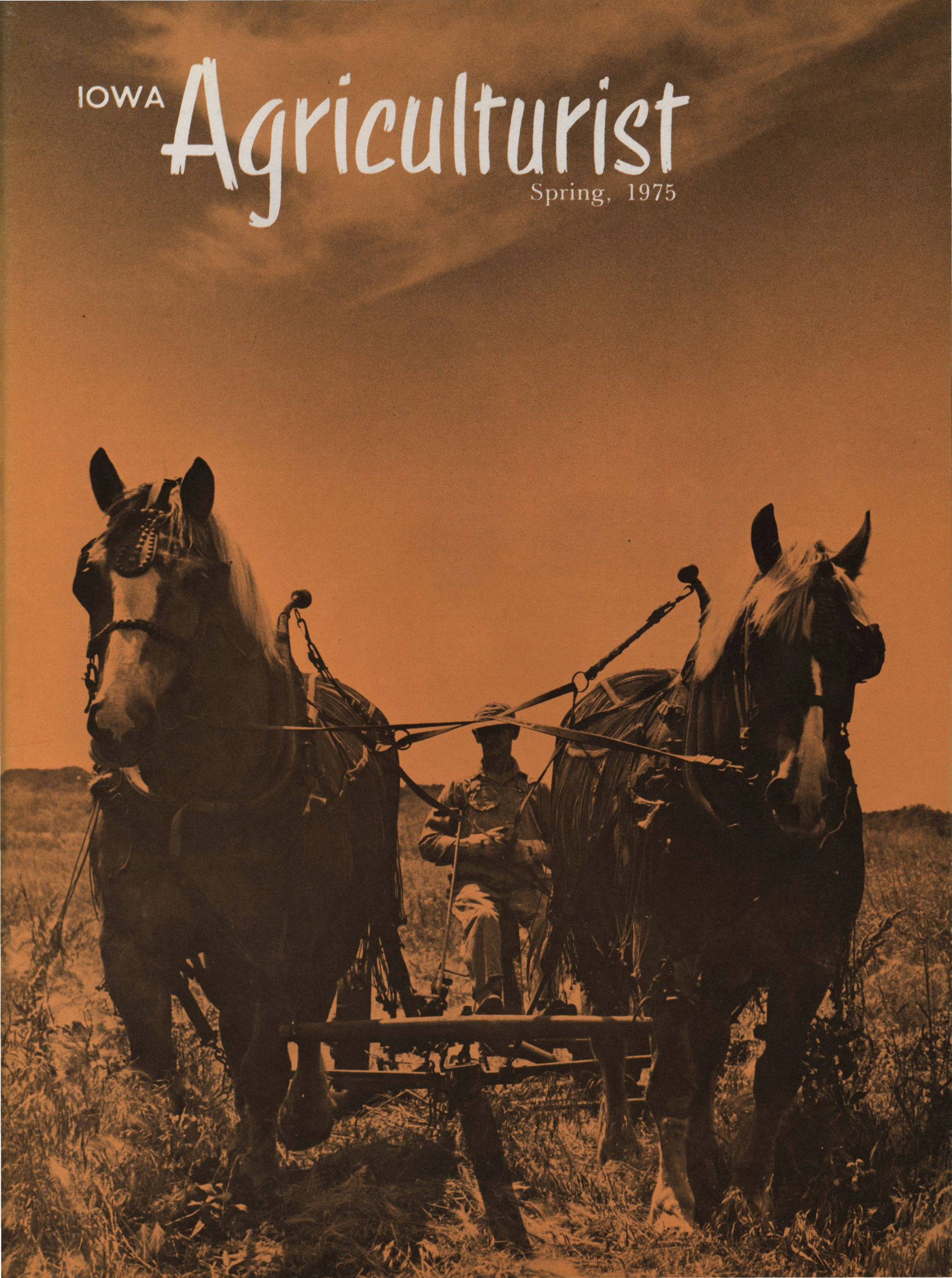
Spring 1975

Iowa Agriculturist 76.01

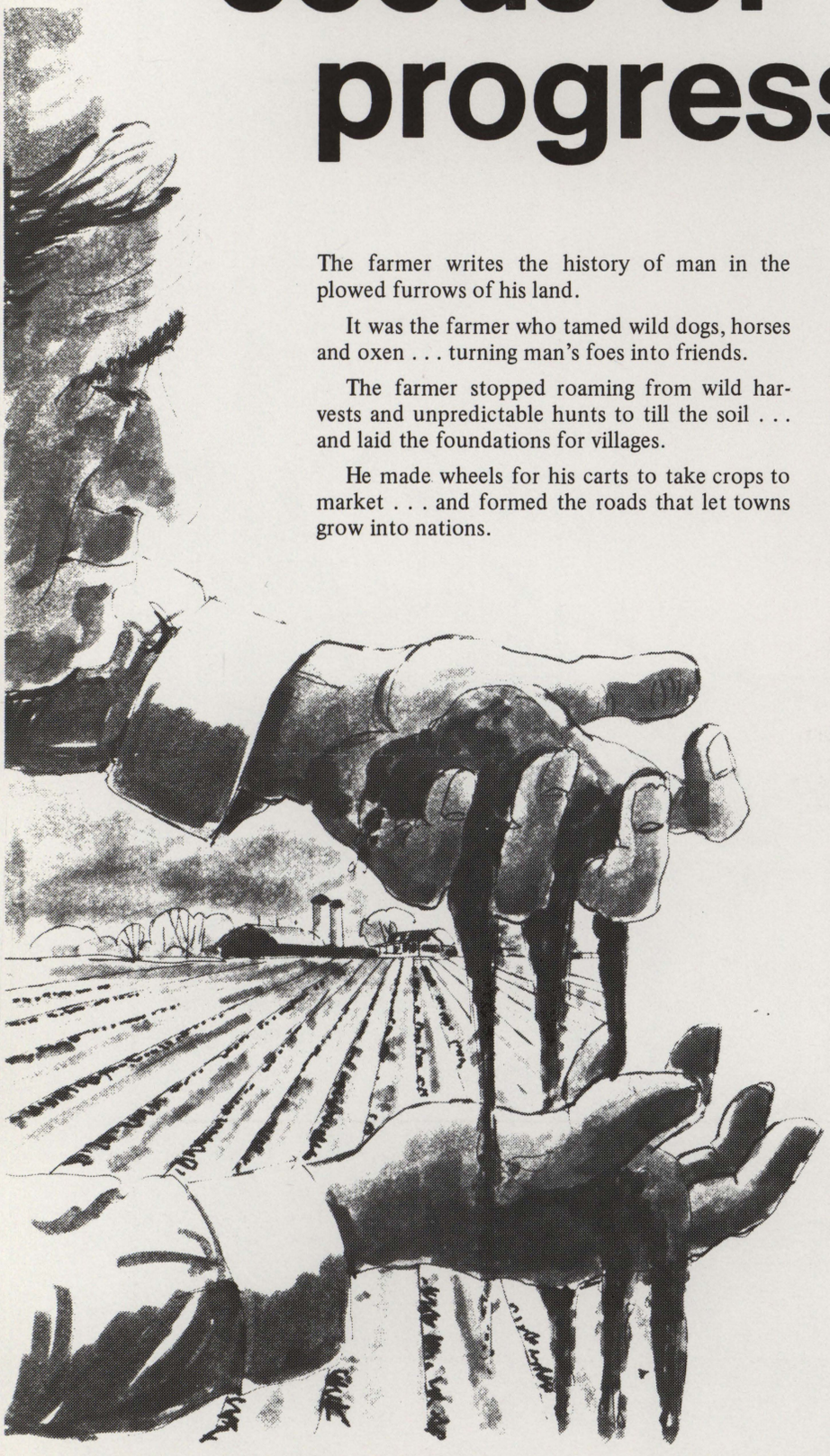
Dave Drennan
Iowa State University

IOWA Agriculturist

Spring, 1975



The hand of the farmer sows the seeds of progress



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IOWA Agriculturist

Vol. 76 Spring, 1975 No. 1

4 **Behind the Editor's Desk**

5 **Estate Planning . . . Future Security**
by Karen Lage, Ag Journalism 2, Davenport, IA

6 **Century of Progress Through Research**
by Jeanne Michels, Ag Journalism 2, New Haven, IA

8 **Being Accepted . . . the Vet School Dilemma**
by Linda Blake, Ag Journalism 2, Webster City, IA

10 **New Way for Better Beef**
by Kathy Deal, JIMC 3, Bagley, IA

12 **For the Love of Horses!**
by Kathy Deal

14 **ISU Tackles Rural Development**
by Dave Drennan, Ag Journalism 4, Rockwell City, IA

16 **Iowa Fields**

18 **New Hope for Cattle Markets**
by Ellen Wagner, AnSci and Ag Journalism 4, New Athens, IL

20 **Cattle Herd Size vs the Elements**
by Patricia Miller, Home Ec Journalism 3, Hopkins, MN

22 **Who Should Own Farmland?**
by Bob Anderson, PSA 3, Harcourt, IA

24 **Narrowing the Gap . . . New Beef Grading**
by Connie Pease, An Sci 3, Colfax, IA

26 **Soybean Cheese Anyone?**
by Chuck Kuster, Ag Journalism 3, Persia, IA

28 **Aggies in Action**

29 **Comeback of the Old Grey Mare**
by Patricia Miller

30 **Over the Brew**

OUR COVER:

Spring work is always a busy time on the farm. Even though Iowa farmers got a late start this year because of our long winter and wet weather, they can catch up quicker than this farmer could've many years ago. But horses are making a comeback as you will read later in this issue.

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This magazine is supported in part by the Government of the Student Body.

 Publication Board: K. Robert Kern, Lee Thompson, Dave Drennan, Gene Bratton, faculty advisor. Published quarterly by agriculture students at Iowa State University. Entered as third class rate at 126 Press Building, Ames, Iowa 50010. Subscriptions; 1 year, $2.00; 2 years, $3.50; 5 years, $7.50.

Behind the Editor's Desk

Ag Before "Center"

Iowa State University has long been known for its contributions to our nation's agriculture. It's important that the University continue this work. Now if Iowa State can only convince the Iowa Legislature.

Iowa State already has the new College of Veterinary Medicine close to completion. But Iowa State University President, W. Robert Parks does not want appropriation requests to stop there.

Parks wants $2 million for remodeling of the Veterinary Medicine Quadrangle. This space would provide room for the departments of education and psychology. At least one of Iowa State's oldest agriculture structures will not be "put out to pasture."

The State Board of Regents and Governor Robert Ray have already approved $800,000 for a new seed lab but an additional $628,000 is needed for additional construction costs.

There are also reconstruction plans for the Horticulture Building amounting to $1,165,000 for remodeling and a new addition for $875,000.

Parks has his hat in the "right ring" but may be batting in the "wrong order." Ahead of these agriculture related requests, he has $600,000 in operating funds for the Iowa State Center.

The new Center should take a back seat to these long overdue recommendations for older buildings. If groups are looking for cheaper facilities then they should rent "the old Armory."

After all, Iowa State University is a Land Grant University and has survived many years without a "Center" related headache.

Ag Day Another Success

Last year, the first annual Iowa Ag Day was held. It was sponsored by the National Agri-Marketing Association (NAMA). The **Iowa Agriculturist** had an editorial then that expressed the wish that this event would continue.

Well it did this year. March 24 was the date and the Hotel Fort Des Moines was the place. This year's theme was "Almost everything starts on a farm."

But there was one new wrinkle. The 37th annual National Farm Institute (NFI) was held together with Iowa Ag Day. The National Farm Institute is a Forum. It was organized to develop wider understanding of agricultural problems, particularly as they relate to business and labor. One of the organizations that supports and cooperates with the Institute is Iowa State University.

The center of attraction was the banquet which was attended by Governor Robert Ray, Senator Dick Clark, NAMA and NFI representatives and various guests.

Featured speaker of the banquet was Dr. Don Paarlberg, Director of Economics of the U.S. Department of Agriculture. His topic was "After the Storm" in which he described a storm of rampaging inflation, recession, energy crisis and devaluation of the dollar.

It was really something to see all of these agriculture leaders from Iowa and out of state in one room. The banquet was a fitting conclusion to a day directed at the objective of making rural or urban people "understand the other fellow's side." May this barrier continue to be broken down.

Thanks To So Many

I would like to express my thanks to Steve Kolb, Chuck Kuster, Nina List, Bruce Showalter, Hedy Gray, Barb Brown, Marcia Davis, Jeanne Roth, June Tesdall, Linda Blake, Connie Pease, Gale Mino, Karen Lage, Bob Anderson, John Sayre, Kathy Deal, Ellen Wagner, Patty Miller, Jean Michels, Dale Fischer, and the people of the College of Agriculture for helping me with the **Iowa Agriculturist** this year. Without you, it couldn't have been possible.

Drennan

Agriculture

Almost everything starts on a farm.

Estate Planing . . . Future Security

by Karen Lage

Estate planning is recognized as one of the primary concerns of aging farmers. According to Dr. Neil Harl, Iowa State professor of economics, young farmers should also be concerned with estate planning, though for different reasons.

The most common mistake made by young farmers in estate planning is believing that premature death is impossible, Harl says. Consequently, they do not plan for unexpected death, which is very possible.

When a farmer dies without adequate planning, state law provides a set of rules for dividing his property. "That's why we say it's impossible to die without a plan. You may die without a will, but not without a plan," Harl says.

"If the state's plan for property division after death is acceptable to a farmer, there may be no need for estate planning. However, if you think you can improve on that plan you should do something about it."

For farmers of all ages, there are three levels of concern in estate planning. "The difference for the younger individual is the way in which he views these concerns."

The first concern for a young farm couple is the division of property if one spouse should die. A well-planned will should specify how the deceased wishes his property divided among his survivors.

"When no will has been planned, state law provides that the estate is divided between the surviving spouse and children. The parents may inherit a portion of the property if there are no surviving children. If neither a spouse nor children are survivors, the parents will inherit the entire estate when no will exists. If the parents are no longer living, their portion of the estate is divided among their other descendents."

The state plan does not cover life insurance benefits made payable to a named beneficiary and does not include property held in joint tenancy, which goes to the surviving joint tenant.

The second level of concern for a young couple considers division of the estate if both should die. The problems are especially crucial if minor children survive. A well-planned estate considers the future of these children as well as their property.

A young farmer's will may nominate a guardian for minor children to prevent possible argument within the family later, Harl says. Since minors are not legally capable to manage property, their portion of the estate could be placed in a trust and managed for them by a trustee also designated in the will.

The third level of concern in estate planning is the division of property if all members of the immediate family should die. "The probability of this happening is not great, but if it happens to occur, the results might be surprising."

When the entire family dies and the will does not deal specifically with that problem, the order of death is important in the division of property. Harl says one example is of a young family killed in an automobile accident. If the husband dies first, the children next and the wife last, the entire estate will go to the wife's side of the family. If the husband dies last, the opposite occurs.

"The order of death, even by a few moments, can result in the property going to one side or the other." Thus, he recommended that provisions be made in the will for division of property regardless of order of death.

"Estate planning for a young farmer also involves estate building to insure an adequate income for survivors who might be dependent upon him for support. Estate building analyzes potential income in survivorship benefits, through life insurance, social security and from existing assets."

"The peak need for these benefits occurs at the birth of the last child." After the birth of this child, each day brings the wife closer to death and the children closer to being self-supporting. Thus, the need for supporting income decreases each day after the birth of the last child, Harl says.

A young farm couple may expect to build a substantial estate through probable inheritances, or becuase they plan to accumulate considerable property on their own. "In order to save federal taxes on their estate, a young couple should plan for the acquisition of property."

Two basic methods may be used to save the maximum amount of federal estate tax. The most widely used method is known as the Model I approach. This method saves tax by placing all the property in the husband's name, assuming that he will die first. The will provides that part of the property is left to the surviving spouse outright and part of it is left to her for life in a life estate.

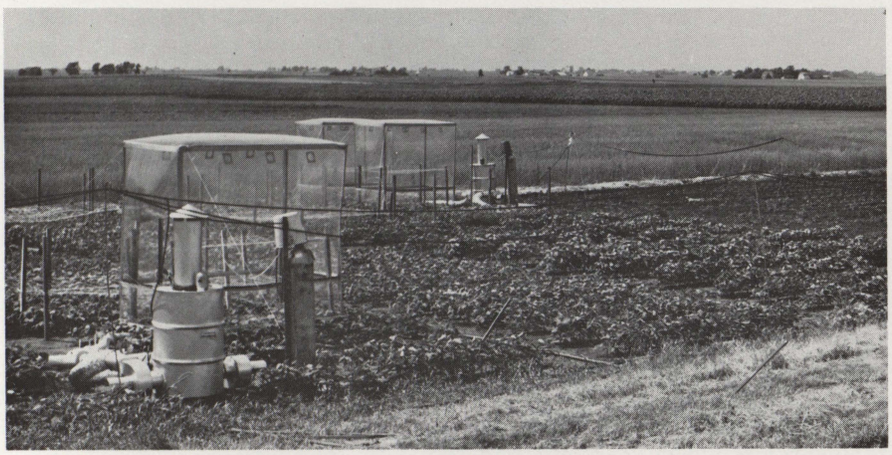
The second method of saving taxes is the Model II approach, which creates balanced estates between the husband and wife. In a pure Model II approach, separate wills are drawn, leaving that property to the other spouse for life.

Whatever method of estate planning is implemented by a young farmer, it should be kept up-to-date. "The people's objectives might change, their wealth might change, their marital position might change or the law might change, any one of which should trigger a re-evaluation of the plan."

"Another of the problems we sometimes see is that some people are not fully aware of what's in their will," Harl says, "and if they don't know what's in their will, they're not in a very good position to know when it should be changed."

Century of Progress Through Research

by Jeanne Michels



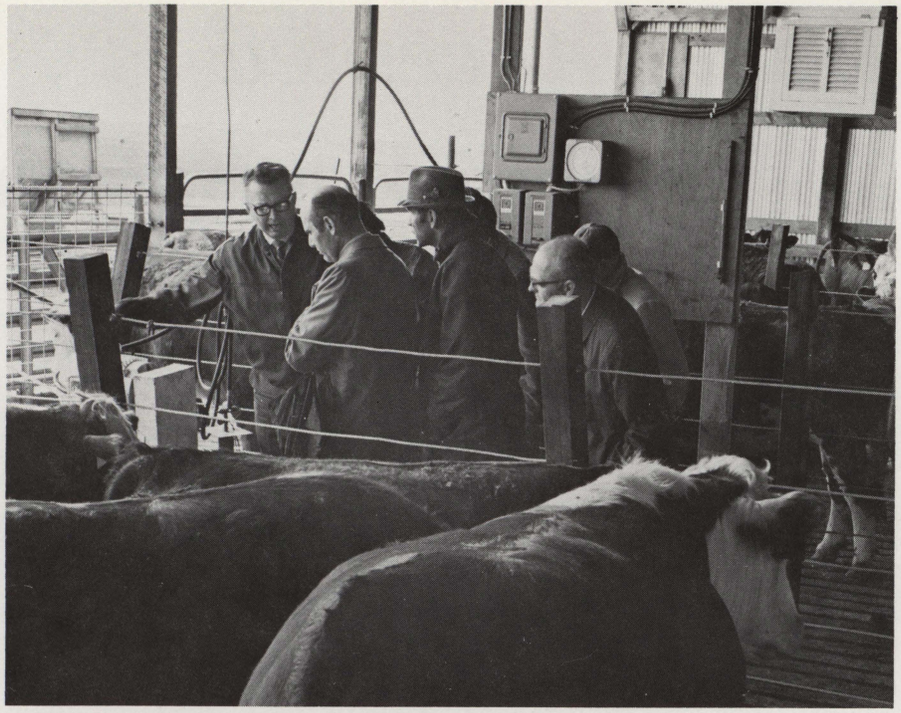
Farm productivity has increased greatly in the past century and much of this gain has stemmed from research conducted at State Agricultural Experiment Stations.

This year, stations across the nation are observing the centennial of the first experiment station, created by the Connecticut General Assembly in 1875. The Hatch Act, passed by Congress in 1887, provided federal funds for agricultural research and stimulated the formation of experiment stations at land-grant colleges throughout the nation. The Iowa legislature accepted the federal aid and established the Iowa Experiment Station in 1888.

To participate in the centennial anniversary, the Experiment Station will broadcast interviews over WOI radio, news releases and a special centennial file on the Experiment station will be printed. Next November a land grant meeting and banquet will be held and possibly President Ford will be the speaker.

John Mahlstede, associate director of the Agriculture and Home Economics Experiment Station, says the Iowa stations are under the Iowa State University Department of Agriculture. In addition to research laboratories and facilities located on the Iowa State campus, the Experiment Station operates 22 experimental farms and special research units. At these farms, scientists conduct field experiments and study special problems caused by variations in soil, climate and terrain. Eight of these research units are located

The ISU Experiment Station does much research. The picture above left, shows an experiment done to trap the European Corn Borer. Below left, another experiment is being performed to test the effect of carbon dioxide on soybeans.



Press days are held for agriculture editors by the ISU Experiment Station to answer questions and show them the farms. This press day was at the Allee Farm near Newell, Iowa.

around Ames, such as the swine testing station west of Ames. The rest of the stations are located in other areas of the state, such as the Allee Farm near Newell. Studies in cattle feedlot management are conducted at this farm.

Work in agriculture is in three catagories: classroom instruction, laboratory work on campus, research and extension education. Experiment stations are connected with each of these categories.

"Although these three functions can be distinguished, staff members generally engage in more than one activity," says Mahlstede. "Most experiment station scientists also teach undergraduate and graduate students at Iowa State or work in extension." Graduate students, under the guidance of station personnel, frequently conduct research on the farms as part of their education.

Scientists at the Iowa stations have much to show for their work. They've developed the back fat probe which measures the fat cover on live hogs. This technique greatly assisted in the selective breeding of swine. Today the fat cover on an average hog carcass has been reduced about 40 per cent and the yield of lean meat per hog increased substantially.

Other results of Iowa Experiment Station research includes: hybrid corn, use of additives in animal feeds, optimal fertilization rates to permit maximum returns, corn varieties resistant to first-generation corn borers, improved livestock rations and economical livestock feeding systems.

At present, experiment station animal breeders are studying the advantages of crossbreeding beef and dairy cattle. Mahlstede says the results so far suggest that selected crossbreeding could increase commercial beef output per cow 15 to 25 per cent. Other research on forages and the use of crop residues in animal feeds will give Iowa farmers the means to exploit these relatively cheap feed sources and permit economical expansion of the state's beef-cow herds.

Experiment station researchers also collaborate with federal scientists in seeking more effective ways to control the corn borer. This work is being done at the United States Department of Agriculture Ankeny Corn Borer Laboratory near Ankeny.

Problems associated with agricultural marketing, management and the overall economic strength of Iowa's agricultural sector are being studied.

The researchers have also been studying Iowa's commodity transportation problems for several years. The results of their initial study of a 6½-county region around Fort Dodge suggested how transportation facilities in that area could be organized more economically.

Starting in the 1930's and continuing to the present, the Iowa Experiment Station has conducted much research on soil erosion. The scientists are also studying the distribution, movement and degradation of pesticides in the environment and their effects on wildlife and vegetation.

Because Iowa feeds more cattle and hogs on less land than any other state, pollution hazards of such a concentrated population cannot be ignored. Research on livestock-waste management aims to avert pollution before it occurs.

"At the Iowa Experiment Station, proposed research is judged by its potential contribution to three basic goals: growth, equity and security," says Mahlstede.

Growth refers to the increased capability of the Iowa agricultural system to provide the goods and services that people want.

Equity concerns the distribution of economic and social goods and opportunities among Iowans.

Security involves such things as pollution, food quality and changes in Iowa communities and institutions.

"About one in five research projects terminates each year. So the process of planning new projects, deciding on priorities and allocating funds is continual."

Being Accepted . . . The Vet School Dilemma

by Linda Blake

More than anything in the world, Marjie wants to become a veterinarian. Her chances of studying veterinary medicine at Iowa State University are not good. Marjie is from a non-contract state. Worse yet, her home state has a school of veterinary medicine.

'I've applied twice for the school of veterinary medicine at Iowa State University,'' she said. ''I'm going to apply as many times as they reject me. I've always wanted to be a veterinarian. The more I go through school, the more I want to become one.''

Marjie's case is not an isolated one. Out of 762 students applying for admittance to the school of veterinary medicine at Iowa State University in 1974, 409 were non-resident, non-contract students.

James Magilton, DVM and acting head of the veterinary anatomy department at Iowa State University said, ''We accept students on the basis of their academic performance, personal interviews and an advisor's rating. We put these together and this is what qualifies a student.''

''The thing we are most interested in,'' he said, ''is to pick 120 students who want to become veterinarians bad enough so they will come here and they'll all graduate. We've never been able to do this.''

Information provided by Iowa State University to students seeking admission, states: ''College credits of all preparational work taken must average a 2.25. This is a minimum for residents of Iowa and contract states. Applicants from states other than Iowa and contract states that can be admitted is such that only those applicants who have an accumulative average of at least 3.5 are considered for admission.''

''Every veterinary college in the country has a contract system now,'' Magilton said. ''It's a matter of expenses. The federal government will pay for part of the physical facilities but the faculty, janitorial services, etc. are a state expense. The contract states were having problems getting students into veterinary colleges so they are willing to buy contracts so that some of their students are admitted.''

''The legislature likes the contract system because those states are paying part of the expense,'' Magilton said. ''The contract states like it because they are getting some of their students into veterinary college. Many of these states have thought about building veterinary schools until they find how much it costs. Then it's out of the question.''

''Nebraska, Oregon, North Dakota and South Dakota have entered into the contract system with Iowa State University. These states pay an ''X'' number of dollars to Iowa State for an ''X'' number of positions in veterinary school.''

Using Nebraska as an example to explain the contract system, Magilton said that Nebraska contracted ten positions at Iowa State University in the College of Veterinary Medicine. Thus, Iowa State is obligated to take ten students from that state, providing the meet the admission standards. The students from Nebraska compete among themselves for those ten spots. If ten do not qualify, Iowa State can take less than ten or none at all, should none meet the standards.

Those students who qualify from non-resident, contract states, pay resident tuition and their home state pays for the out-of-state tuition plus an ''X'' number of dollars.

If the quota from a contract state is not met, then Iowa State can do with those left-over positions what it wishes, Magilton said. They can go to Iowa residents, people from other contract states or non-resident, non-contract students. They are ''wildcards.''

''Iowa State University is obligated to take roughly 75 percent of the enrollment from Iowa,'' Magilton said. ''This number we're committed to, as well as so many from the contract states. When we have met all those commitments, we will have seven openings left this year. Those people from non-contract states are competing among themselves for those seven positions. Last year, 409 non-contract, non-resident students competed for one opening.''

''I was asked to meet with two groups of parents during summer orientation. A lot of these parents were from out-of-state. The question came up both times, 'how many did you take non-contract non-resident?' I said 'one'. The thing they really resented, was the fact that they weren't told how many would be accepted. Now they know it's seven. They know exactly what the odds are.''

''The thing we are most interested in,'' Magilton said, ''is to pick 120 students who want to become veterinarians bad enough so they will come here and they'll all graduate.''

In the past, students coming from non-contract states were unaware of the contract system at Iowa State.

When Carol first applied at Ames, she was not aware of the contract system. Ames did not send her any information on it. "They shouldn't have accepted me in the pre-vet curriculum if they knew I didn't have a chance. They could have informed us more clearly."

Marjie was not aware of the contract system when she applied at Iowa State. When she found out about it, she was disappointed. "After I got here, they told me there was a contract system and students from states with veterinary schools don't have much of a chance of being admitted." Information about the system was not included in the brochure Ames sent to her prior to attending school here.

Last fall, the brochure was revised so it now clearly states, "in considering applicants for admission to the College of Veterinary Medicine, preference is given to residents of Iowa and certified residents of states having contracts with Iowa State University for the training of veterinary medical students."

The brochure continues, "The College of Veterinary Medicine does not discriminate in its admission policy on the basis of race, color, sex or national origin of applicants."

Disagreement was voiced by some of the pre-vet students. One student said, "I think they still give preference to the guy because when a girl gets into vet school, she can always get married and quit her profession. I think the man would get the position because of this fact."

Magilton responded, saying, "I'll assure you, sex has nothing to do with it. When we make our preliminary decisions, we have their grades but not their picture. We have their name but only their first initial. We don't know whether we're talking about a man or woman."

"The stand that I have concerning the selection process is if 75 per cent of the applicants best qualified would be women, there would be 75 per cent women in that class," Magilton stressed. "There's no doubt about it as far as I'm concerned."

Following the preliminaries, the advisors are sent an evaluation form. The advisors rank their advisees on a ten point scale with ten being the highest recommendation. Grading is based on the students' character, diligence and other such qualities.

Each individual applying for admission to the school of veterinary medicine, appears before a panel of Iowa State University staff, all of whom are certified DVM's. This group determines a rating on each individual.

When an applicant appears before the interview committee, Magilton said he looks for inherent traits, such as curiosity, awareness of things happening around him and a feeling of responsibility for his fellow man. Not only is the applicant judged on his or her ability to perform as a qualified veterinarian, but he or she must be an individual who will be an asset to the community where he or she practices.

"I think the interview system is good but I think they should decide which students are considered for admission," one pre-vet student said. "These should be the only people interviewed. It's a good opportunity for students to gain experience in taking interviews though."

"Your enthusiasm, convictions and personality can be brought out in an interview," another pre-vet said. "Questions they asked me bothered me for a week after my interview. I could have given better answers now. When I went in there, I just spoke off the top of my head."

"Standards are more strict today for students wishing to get into veterinary school than a few years ago," Magilton said. "For one reason, there are about 750 applicants and 20 years ago, there might have been 200. The standards are more strict, not because we've made it so, but because we had applicants who are so much better."

Due to the large number of students who do not make it into the school of veterinary medicine, incoming freshmen are encouraged to go into a three-year program, said Magilton. Their area of concentration would be in the biological area, such as animal science, zoology, or fisheries and wildlife. This protects the student who applies for vet school but is never accepted.

Not all incoming students are aware of the fact that no degree is given to the pre-vet major. Marjie said, "I was advised to take a two-year program in pre-vet. I never found out about not being able to graduate until I talked with individuals in the animal science department. When I attended orientation for freshmen, no mention was made about majoring in another area. They just said, 'go into pre-vet.' I think that was really misleading. They should give the freshmen a better idea so they can go into different majors."

"I know students who have applied to vet school and med school both," Magilton said. "Whichever one comes through, that's what they do. If an individual wants to be an M.D. and settles for a DVM, he'll always be a frustrated DVM. A person has to zero in on what he wants to do. Too much effort goes into the training of either one for them to compromise."

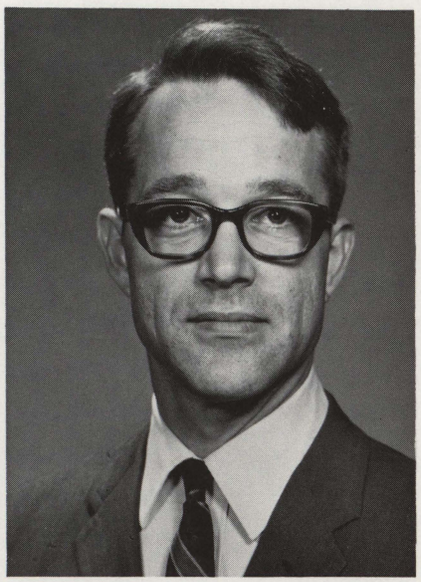
Each individual applying for admission to the school of veterinary medicine appears before a panel of Iowa State staff, all of whom are certified DVM's.

New Way For Better Beef

by Kathy Deal

Sire evaluation and selection is one of the toughest decisions a beef breeder wrestles with. Selection of breeding stock is the most basic element in any breeding program. However, on the beef scene, the advent of artificial insemination has made sire selection crucial because of magnified reproductive potential. Sire selection and consequently sire evaluation for specific traits are the key factors to beef improvement.

The show ring has long been an attempt at evaluating bulls. However, new, more objective means of measuring traits of commercial importance require different methods of evaluation. A breed-wide sire evaluation program is a new development in performance testing and, if successful, will have great impact on the beef business. Just what is breed-wide sire evaluation? Dr. Richard Willham, Iowa State University's animal science department, committeeman for the Beef Improvement Federation and promoter of sire evaluation programs, says, "Basically, such a program is a procedure that develops fair comparisons among a large number of sires based on the performance of their progeny. The set of sires used in all the herds provides the common link that is used to fairly compare all sires tested."



Dr. Richard Willham, of Iowa State University's animal science department, is a committeeman for the Beef Improvement Federation and a promoter of sire evaluation programs.

Leaning back in his chair, Willham continues enthusiastically, "Suppose you progeny test two young bulls along with an equal number of progeny from the specified set of sires. Then the **expected progeny differences** of your bulls from the specified set of sires can be obtained."

Willham went on to explain why sire evaluation programs are needed now. Performance in those traits of commercial importance is what progressive beef producers look to. Production of a uniform, specified product will become essential if a breed is to compete in furnishing breeding stock to the commercial beef industry, predicts Willham.

Improvement of those product traits may be the overall goal of a breed in a sire evaluation program. This would be possible with the proposed sire evaluation program because the breeder still has the opportunity to conduct a creative breeding program of his choice. By

The importance of this sire evaluation program is that you have within a breed a set of bulls whose semen is used in every test, so that you have calves out of these bulls compared directly in the same test with the test bulls' calves.

using bulls from the specified set of sires, called reference sires, a breeder not only compares his own bulls with the reference bulls, but, because those bulls are used throughout the breed, individual herd bulls can then be compared.

Willham says: "The beauty of this sort of sire evaluation is that the individual breeders, no matter what their herd size, can compete effectively for their share of the market with their own bulls."

Furthermore, the big breeders will also benefit by a sire evaluation program. With an evaluation program of this type, he can compare his bulls with all others in the breed.

Why limit an evaluation program to one breed rather than have one big program for all breeds? It is true that the percentage improvement in commercial production is greater using crossbreds rather than straightbreds. The breeds can improve the production and product traits of their breeding stock and provide to the commercial beef industry a superior product to exploit by combining breed strengths and utilizing the available heterosis for reproduction. This is the reason for considering a sire evaluation program for breeds rather than one for all breeds.

"The success of such a program requires active participation in first getting it developed and second in actually conducting progeny tests using a set of sires in your own herd," Willham says. "Action, not words, is the answer and this action must come from the progressive breeders who are engaged in real breed improvement."

Willham says the breed associations and other performance groups are the logical ones to develop and conduct sire evaluation programs for their members' benefit. "The conduct of such a breed-wide program will not be easy or cheap," Willham admits. "But such a sire evaluation program offers to all breeders the opportunity to utilize breeding technology and the opportunity to effectively compete with all breeders to make their breed a significant source of germ plasm for the commercial beef industry."

One group that is getting an evaluation program moving is the Iowa Beef Improvement Association (IBIA). Jim Glenn, IBIA director, sees progeny tests as the third step in performance testing of cattle. The first, he says, is on the farm testing. Then the cattle are moved to central bull testing stations. There the bulls are tested through evaluation of their progeny in sire evaluation programs.

IBIA hopes to have 20 to 40 bulls as reference sires and 1500 cows in the program. Glenn says the Association is working as a sort of middleman for breeders. The program, he says, serves as a link between the breeder and his own breed's national evaluation program by evaluating his bull for him.

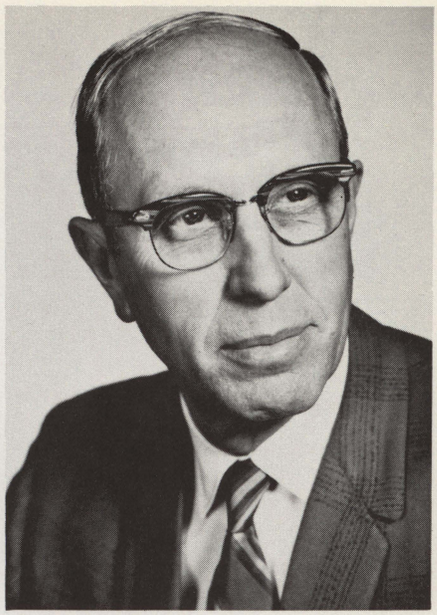
"What it amounts to is more accurate identification of the top bulls in the beef business."

"The essence of this program," Willham says, "is that you have within a breed a set of bulls whose semen is used in every test, so that you have calves out of these bulls compared directly in the same test with the test bulls' calves. And through these common progeny, you can pick out the amount of gain each bull made."

The real significance of this program, of which Iowa is the first state to initiate, is that the purebred breeder and the commercial man will be brought together to improve the beef cattle industry.

For the Love of Horses!

by Kathy Deal



"Heels down! Sit up straight. Steady with those hands, easy now. Ride those horses—don't just sit on 'em, ride 'em!"

I shoved my boot heels down in the stirrups and listened for the next command.

"Walk."

Little Joe, the horse I was riding today, seemed to understand what the long-legged man in the middle of the corral said, for he slowed to a walk before I even pulled on the reins.

"All horses turn in," the voice boomed.

We lined up and sat facing him. He lifted his gray hat and set it back on his head. His skin is tanned from the sun and the wind, for he has four riding labs a week. He also has four lectures a week and another lab for the beginning horse course at Iowa State University, animal science 115. But this is not all that Jim Kiser does. An ex-college polo player and cavalry man, he conducts horsemanship clinics for 4-H kids, is the advisor for the Block & Bridle Horse Show, and is one of the major horse show judges in the United States.

Leaning back in his chair, with hands folded behind his head, Kiser told of a love affair that began on an Iowa farm and has lasted throughout his life—his love affair with horses. On a farm near Paullina, Iowa, Kiser helped his dad with the farm work, which then involved draft horses. They also had a few riding horses as well as other kinds of livestock. As a boy he participated in local horse shows and fairs.

Kiser recalls with amusement one incident at his boyhood home. He hitched a spunky pinto named Spot to his father's road wagon. However, Spot evidently didn't appreciate the finer points of harness, for he took off at a dead run, leaving young Kiser behind.

Another runaway brings a deep chuckle from Kiser as he recalls an errand he ran for his dad, who sent him to the neighbors with draft horses to borrow a wagon. The horses, Kiser laughed, had been running free and "were feeling pretty good." With the young boy on the wagon behind them, they bolted, running down the road. How did he stop them?

"Well, I turned them into a ditch. Nothing got hurt, but we did run into a mailbox and knock it off the post."

At the age of 10, Kiser trained a riding horse by himself. Then when he turned 12, he started playing polo with the local teams in Paullina, Spencer, Primgar, and surrounding towns.

Even today, at the mention of polo, a broad grin leaps to his face. His enthusiasm for the sport continued into his college years at Iowa State University. Polo was one of the sports at Iowa State University until 1942. Regularly-scheduled games with the University of Missouri, Oklahoma, Illinois, Michigan State, and Ohio State were held. The team traveled to Arizona and New Mexico for non-scheduled games also.

It isn't hard to imagine Kiser as a gangly youth, swooping down from Banjo, his favorite polo horse, to lambast a scoring ball for Iowa State University. He played the long ball hitter at position three and guard at position four.

Kiser came to Iowa State University with a varied livestock background. On the Paullina farm, the Kisers had a purebred herd of Angus cattle and they also raised hogs. This influenced him to enroll in animal husbandry at Iowa State University, where he was on the inter-collegiate judging team. His younger brother Don followed him, also majoring in animal husbandry.

After he graduated from college in 1942, Kiser went directly into the army as a second lieutenant. During World War II he was promoted to captain. In 1946, he requested admission to the horsemanship school at Fort Riley, Kansas, and was accepted. There he studied hunting, jumping, and every other phase of horsemanship. And, of course, polo was his favorite extracurricular activity.

Kiser just recently retired from the Army Reserves, where he was a colonel. He had been in the Reserves for 32 years. And, to this date, he shows three or four old cavalry films to his classes.

Kiser turned to teaching in 1946, when he joined the animal science staff at South Dakota State. He also coached the livestock judging team there.

After five years at South Dakota, Kiser came to Iowa State University where he taught, coached the judging team, and took charge of the horse program. At this time, Iowa State University was making the transition from draft to light horses. Kiser sold the eight Belgians and eight Percherons remaining. This left a few American Saddle Horses and six Quarter Horses in the stable. Kiser developed a breeding program for the Quarter Horses, and continued to raise saddle horses.

One of Kiser's biggest responsibilities here is serving as advisor to

the Block & Bridle Horse Show committee. The club holds the show in Des Moines each April. Starting in December, Kiser works closely with selected Block & Bridle students working on a Central Committee to put on the world's largest student-run horse show.

The Block & Bridle Show enjoys accreditation by the American and Iowa Quarter Horse Associations, Iowa Saddle Horse Association, and Iowa Stock Horse Association.

Crossing his boots and stretching his long legs, Kiser reminisced about the show's past, recalling its origin when he was an Iowa State senior. At that time it was held on campus, in connection with Veishea.

In about 1946, Veishea turned the show over to Block & Bridle. Kiser has been the show advisor since 1952. In those early shows, huge tents were put up for the show and for stabling the horses. Kiser said, "Students on central committee think they have a lot of work to do now, and they do, but there was a lot of heavy physical work involved back then."

Kiser took off his glasses, put them back on, and continued. In 1955 and 1956, the show was held in the Armory. The parking lot east of WOI television and the lot west of Women's Gym were show locations in four different years.

Veishea decided they didn't want responsibility for the show in 1960. So it became the Block & Bridle Show exclusively. At that time it made the big move to Des Moines. Many people were apprehensive about the move, Kiser said, because of transportation and other factors. He smiled and added, "but it has been very successful."

Out of all his activities, Kiser is probably most widely known for his work as a horse show judge. Since September, he has judged major shows in 14 different states, and twice in three of them. He was one of three judges in the Stock Seat Equitation Medal Finals at the Cow Palace in San Francisco this fall.

He started as a judge with livestock judging teams, saddle club shows, fairs, and 4-H shows. Gradually, his reputation as a judge spread and today he is accredited by the American Horse Show Association in 22 different divisions. These divisions range from Harness Ponies, to Jumpers, to Tennessee Walking Horses.

Kiser leaned forward in his chair and stressed that he has tried to keep the scope of his judging general. He judges mostly Arabians, Morgans, Appaloosas, Pintos, Paints, Palaminos, Stock Seat Equitation, Open Western, and Quarters.

This man is active in many other areas besides judging. He was president of the Iowa Quarter Horse Association for two years, and secretary for 13. On the national level, he is a director for the American Quarter Horse Association. Directors are chosen on the basis of their awareness of the Quarter Horse industry in their own state. They work together to solve any problems that may arise. Also, the directors are asked to work on one or more committees. Since 1968, Kiser has helped with the judges' seminars.

In another of Kiser's roles, one may hear him say: "old timers used to say to never wash your horse because it takes away the natural oils, so if you do . . ."

The little 4-H kids on the front row sit with their eyes riveted on Kiser. Conducting these clinics is one of Kiser's special interests. They concern horsemanship, fitting, grooming, and general horse care. Saddle clubs and 4-H groups seek him out to conduct clinics for their communities. Of course, he is also in charge of the Iowa State Horsemen's Clinic at Iowa State each spring.

What is his favorite class? He shook his head slowly and said, "I enjoy them all, they're all different."

However, the observant student in Kiser's class catches the smile that tugs at the corners of his mouth when he speaks of Quarter Horses. His special fondness for Quarter Horses is easy to see by the way he always picks Little Joe Cody, a 16-year-old Iowa State Quarter Horse to use in class examples.

The Quarter Horse is now the most popular breed of horse. Kiser explained why: "The temperament of the Quarter Horse is such that the novice horseman can get along well with. Also it has been closely associated with the cattle industry as a working horse. Furthermore, when used as a pleasure horse, a person doesn't have to keep riding him all the time to keep him in shape."

A Shetland pony is tucked away in the childhood memories of many, many students. However, the picture Kiser has in his office of the modern Shetland pony looks much different than the Shetlands of the past. Kiser is on the Type Committee for the Shetland Pony Association. It is the committee's job to determine what the ideal type should look like.

In looking to the future of the horse industry, Kiser feels that a great deal depends on the economy. "If the present recession is a short one, it probably won't hurt it. The horse industry is closely tied with the economy. It will be hampered if there is not enough money for leisure and recreation."

Out of all his activities, Kiser is probably most widely known for his work as a horse show judge.

ISU Tackles Rural Development

by Dave Drennan

Did you know Iowa State University receives approximately $92,000 a year from the Rural Development Act of 1972? Did you know the Univeristy had any connection with this act?

Under Title V of the Act which is entitled "Rural Development and Small Farm Research and Education", the "appropriation and apportionment of funds for rural development extension programs, rural development research, and small farm extension, research and development programs" is authorized. The research and extension programs authorized by the Act "shall be organized and conducted by one or more colleges or universities in each state so as to provide a coordinated program in each state."

"Although all private and publicly supported colleges and universities in a state are eligible to participate, the administration of each state program is the responsibility of the Land Grant University in the state."

The Act authorizes $10 million for the fiscal year ending June 30, 1974, $15 million for fiscal 1975, and $20 million for 1976. "Only three million dollars was allocated the first year," said Ron Powers, assistant director of Iowa State Univeristy's agriculture and home economics experiment station and cooperative extension service.

Powers said the allocation is split 50/50 between research and extension. "Each state is administered funds by a formula and Iowa received approximately $92,000 per year for the first and second years of the Act. Our allocation for the third year is undecided. This is really a small amount of money but Iowa does receive more than most states. However, unless Title V is extended, it will end in June 1976."

Iowa has a 15 member State Rural Development Advisory Council which reviews and approves all projects that will receive part of this $92,000. On January 21, 1974, the council decided to focus the Iowa Title V activity on a six county area around Fort Dodge. This six county area is coterminous with Region five of the State Office of Planning and Programming. "Wright, Humboldt, Pocahontas, Webster, Hamilton and Calhoun counties are included in this plan," Powers said.

A Regional Advisory Committee was then formed within the six county area to assist with identification of rural development problem areas and the review of all research and education proposals considered for funding under Title V.

Powers said this six county area was selected because of several criteria. "First of all, the region is almost totally under the influence of Iowa, all regions with metro areas were eliminated, a regional planning commission was needed (there's one in Fort Dodge), the area had to be easily identifiable and this area had rural development problems that we could make an impact on."

"Iowa State Univerisity has the main responsibility for this program but there is also an agreement with Iowa Central Community College in Fort Dodge for one of the projects. There are 75 to 100 people from four colleges and nine departments at Iowa State that have had contact with this project."

"The main objective of this program is to provide the best possible information and technical assistance for making decisions to the leaders of this area. I think we can demonstrate that we have achieved this objective because we will be improving the information base of this area," Powers said.

One of the projects established in the Fort Dodge area deals with teaching simple home repair. It was only a three month pilot plan in Pocahontas and Calhoun counties and has already been completed. The four major objectives of this plan were to: "develop competence in making simple home repairs, promote interest in improving current housing conditions, develop an appreciation of the importance of preventive maintenance and stimulate continued interest in maintaining and improving the home environment." The plan was directed toward elderly people especially women.

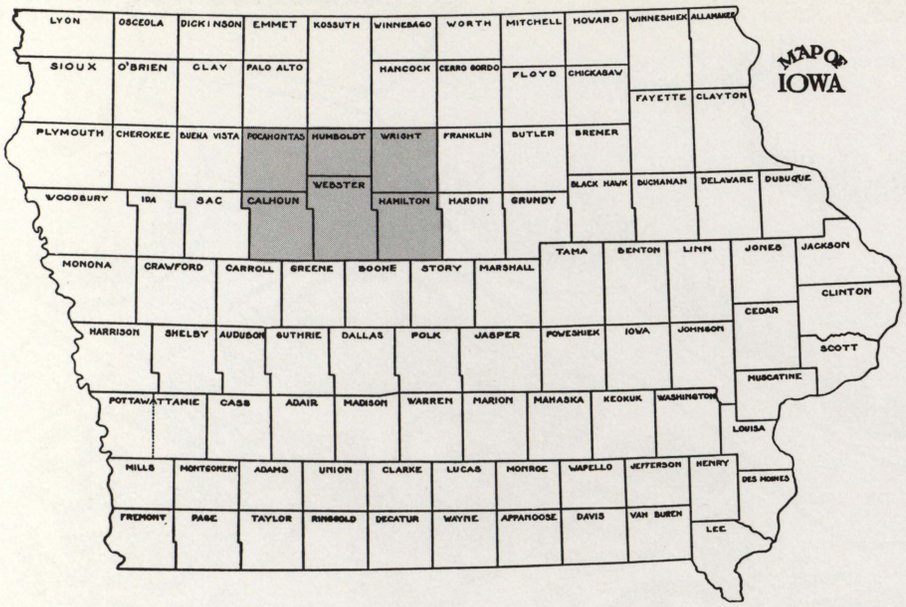
The simple home repair plan was considered successful and has led to a broader program for implementing a housing project on a year round basis to reach a cross section of persons. This expanded project was approved on January 9, 1975 by the Regional Advisory Committiee.

Another project in the six county area is an economic base study. It will provide benchmark data regarding the economic wellbeing of the area and basic economic information for educational programs. These educational programs will show the people of this area what has occurred in the area and what is likely to occur in the near future.

A population base study is also being done which will provide information about the present population and future population projections.

Twenty-six communities in the area are undergoing a community quality of life study in order to define the desired attributes of a good community. Areas will be identified where people think gaps exist between what their situation is and what it could be in an ideal community.

The land use research project being conducted in the area is aimed at past, present and projected land uses for the six counties. "This



The Iowa Titile V activity is centered on a six county area around Fort Dodge. These counties are Pocahontas, Humboldt, Wright, Calhoun, Webster and Hamilton. Iowa Sate University is mainly responsible for the research being done here.

project is also aimed at improving the methodology for gathering land use data and projecting patterns of land use under different assumptions.'' Data for additional land use policy education in the area will be provided and the study will assist the Regional Planning Committee and other local planning units.

Iowa Central Community College in Fort Dodge is handling the last major project. This deals with improving the quality of life through rural governmental leadership. The purpose is to develop a needs assessment that would provide baseline data for a broader base of local decision making and establish seminars that will give local officials the tools of problem solving approaches to help in rural development. The leadership seminars will focus on local officials and will include such topics as revenue sharing, manpower programs, Community Development Act of 1974 and budgeting.

There are several additional activities which have been undertaken but are not identified as separate projects. One of these includes cooperation with the Regional Planning Commission and the Ancillary Manpower Planning Board in the development and printing of a resource directory. This directory would provide information about various organizations and agencies.

Another activity underway is a cost/benefit analysis of soil drainage systems throughout the six counties. The initial resources will be provided by the Agriculture and Home Economics Experiment Station with cooperation from the Soil Conservation Service.

Cooperation with ongoing extension community resource development programs which encompass this six county area has provided other programs. One such program provided rural development materials at a conference for local bankers. The conference focused on the Rural Development Act of 1972.

Powers said the six county project is worth it because it will yield information for educational programs. ''The overall goal of the Rural Development Act of 1972 was to increase the number of jobs, increase average incomes and housing, community services and improve leadership in rural communities. Right now we can't claim the credit or be responsible for the failure of the area in achieving these goals. It might be four or five years before something happens that could be traced back to the input from the research and extension component of the Act. It's tough to measure educational gains but we will be evaluating the results.''

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Iowa Fields, by Karen Menke, AA ED, AA AD 3, began as a texture problem for applied art. The piece is done in black and white with a felt tip pen. Karen is from Carroll, IA.

New Hope for Cattle Markets

by Ellen Wagner

Since August, 1974 the average market price for beef cattle has continually declined but there's now hope. One St. Louis commodity manager predicted futures would drop in price to the low $30 range before halting. Reasons for the decline are many.

Factors which have caused the price of beef to drop are large numbers of cattle on the market, high gran prices (which have forced many cattlemen to sell instead of fatten calves), and new feeding methods.

Although the commodity market broker realizes these factors, he reviews the laws of supply and demand when deciding what prices to pay on the feeder cattle and beef cattle futures market. Supply factors reflect changes in the availability of beef, while demand factors affect the disappearance of beef.

In 1970, approximately 112,369,000 head of cattle were in the United States compared to 131,825,000 head of cattle on January 1, 1975. Cattlemen started holding their cattle about a year and a half ago during the price freeze, expecting prices to rise when the freeze was lifted, according to Dr. Paul Brackelsberg, Iowa State University beef specialist. "Some cows that should have gone to the feedlot went into the cow herd."

When the market price dropped after the price freeze was lifted cattlemen switched to feeding low cost feeds such as roughages, thus slowing down the growth rate. "Two years ago that was unheard of, " Brackelsburg said.

"Slowing down the growth rate has resulted in a build-up on the range. If we start seeing optimism in the market we're going to see a speed-up in the process from cow to market."

Cattle feedlot numbers were down 29 per cent as of February 1, 1975 from Feburary 1, 1974 in the top seven cattle producing states (Texas, Iowa, Nebraska, Kansas, Colorado, California, and Illinois). Yet, the total number of cattle marketed in these seven states was down by only four per cent.

"A high proportion of marketed cattle is no longer being fed," said Marv Skadberg, Iowa State Extension marketing specialist. In 1973, 21.8 per cent of the cattle marketed were non-fed, while in 1974, 33 per cent of the cattle marketed were non-fed. "Most of the increase was from the last half of the year," Skadberg said.

"We estimate it could run up as high as 50 per cent non-fed. It might be getting close to that now."

Previous cattle prices, management ability of the feeder cattle producer, and grazing land conditions are factors which influence production of feeder cattle which are sold to feed lots. "The best measure of demand is what is happening to feeder cattle prices," Skadberg said. "Right now there isn't much strength."

"Feeder cattle price increase will come about rather slowly after slaughter market price increases," Brackelsberg said.

Usually when prices are low, as they have been since August, producers reduce their herds by selling heifers, which would have been kept for replacements and by selling some of the older cows for slaughter. If prices have been low and are currently inceasing, cattlemen retain heifers for breeding to increase herd size.

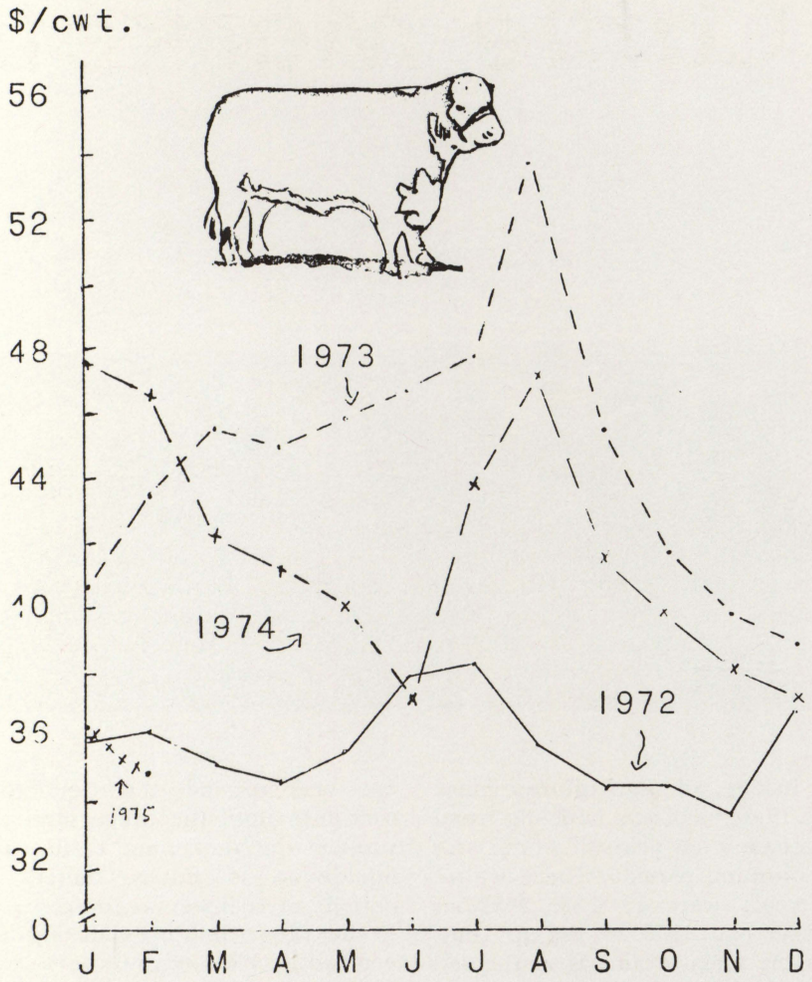
Larger, faster-gaining, more-efficient feeder cattle are being produced by cattlemen using new management practices and technology. Improved nutrition, culling, pregnancy testing, crossbreeding and use of animal health innovations have been just a few of the management practices which have helped produce current cattle herds.

Irrigation, chemical control of weeds, new varieties of grasses and fertilizer applications have increased the number of animals the land can support per acre. Although these technological advances have helped, they have not minimized the large role grazing conditions have in determining how quickly the feeder cattle will enter feedlots, so consequently, animals produced under poor grazing conditions have higher costs of production than those cattle raised when grazing conditions are good.

Total production costs for the producer vary according to which route he takes his feeder cattle through before they reach the feedlot. Prices of feeder cattle, prices of feed grains, conditions of grazing lands and predominate practices of cattle feeders in an area determine which route will be taken.

After having been weaned at

MONTHLY AVERAGE PRICES OF CHOICE STEERS AT OMAHA



approximately six months of age, some calves are moved directly to feedlots. The majority of calves are "rough wintered" on rangeland or cornstalks and hay for about six months. During this time their weight should increase approximately 100 pounds from their weaning weight of 350 to 400 pounds.

In the spring, calves that have been "rough wintered" usually enter a short preconditioning period during which they are dehorned, vaccinated, treated for control of parasites and are familiarized with confinement, feed bunks and water troughs.

After this preconditioning period calves enter feedlots via three major methods. The first and most expensive takes the calves directly into feedlots where they are gradually brought up to full feed. Some of the cattle are held in confinement and fed rations that are high in roughages until they reach 700 to 800 pounds. They are then moved to feedlots where they are on full feed. The third and most prevalent route is for the calves to be "summered" on good quality pastures. In the fall they enter the feedlot at a weight of 650 to 800 pounds.

"If the market showed strength in feeder prices I'd probably sell my calves as feeder animals," Skadberg said. "If I didn't get some price strength I'd hold my calves as long as possible. I do not want to feed cows, however, if I can possibly avoid it."

Feedlots give the most direct demand for feeder cattle. This is reflected several months later in the supply of fat cattle available for slaughter. Price of feeder cattle, price of feed, costs of capital, per cent of operating capacity of the feedlots (space available) and the price of fat cattle reflecting consumer demand for beef directly affect the demand for feeder cattle. Due to the increased number and size of commercial feedlots the demand for feeder cattle has remained fairly stable throughout the past year.

After the cattle have reached the feedlot, a cattle feeder's management ability and experience determine the amount of time the cattle spend there. The higher the grade which the manager is striving to achieve, the longer the cattle will be on feed and the heavier the weight at marketing time. The manager must be able to determine the quality of the animal as it reaches his feedlot, for some cattle do not have the potential for reaching prime beef status.

The commodity market analyst also scrutinizes the consumers' demand for fresh beef and beef products, since the demand for beef cattle is dependent on these demands. A consumer's demand depends upon the prices of beef products, level of income, age distribution of consumer, religion, tastes and preferences and the prices of beef substitutes.

During the past few years American consumers have become more weight and health conscious. This has resulted in changing their demand to meat with less exterior fat and less fat content. The consumer is seeking high quality meat and does not want to pay for unneeded fat. This change in demand has reached the producer, where with modern technology, he is producing and raising animals with less fat and more meat. Less waste has been the end result.

There has also been a change in demand for more meat in general. Beef consumption has increased rapidly in recent years, now accounting for nearly two-thirds of all red meat consumed in this country. But the cattle market price hasn't showed this consumption increase.

"I have been expecting some strength in the cattle market this spring, but so far I haven't seen a great deal," Skadberg said. Brackelsberg said, "I've seen some modest strengthening in cattle, but I wouldn't be one to forecast $50 cattle."

Cattle Herd Size vs the Elements

by Patricia Miller

A hot dry summer wind rustles over the parched corn field. A farmer crushes the scorched leaves between his fingers. He shakes his head. Drought.

In southwest Iowa, a farmer scans his herd. Some will have to go. And soon. The price of feed is astronomical.

These farmers are experiencing high grain prices and consequent herd reduction brought on by drought.

"A period of unfavorable weather causes feed prices to rise at the same time the capacity of the range land suddenly decreases," said Dr. Louis Thompson, associate dean of agriculture at Iowa State. "The result is a liquidation cycle is started which runs about as long as the unfavorable hot-dry summers."

Dr. Thompson has been observing the relationship between cattle cycles and weather patterns since the mid-sixties. He became interested in cattle and weather by chance when he read an article on the subject published in 1925 by a Cornell University professor.

Beginning in 1964, Dr. Thompson has been striving to get people to recognize the cyclical patterns of weather and the effect on cattle.

"Periods of hot-dry summers are followed by liquidation of cattle herds until cool, rainy weather improves range land and grain prices."

"On the average there is a severe drought every twenty years, followed by periods of wet, cool weather."

These weather patterns are cyclical and can be traced back to the 1800's.

Thompson said that around 1850 the summers were cooler and the rainfall greater than the present, so range conditions were very favorable. For the next century, the Great Plains experienced a warming and drying trend that became more severe during the 1930's. The famous 'dust bowl' of the 1930's is believed to be the warmest period in the history of agriculture. Since then, there has been a cooling trend broken for a few years at a time with the warming periods. These warm-dry years were 1944-45, 1952-56, 1964-65 and 1973 to the present. Now the Great Plains is at the tail end of a warm-dry period and cool-wet weather is expected.

"These drought periods peak about every ten years. The most severe impact on cattle occurred with the droughts of the mid-thirties, mid-fifties, and lately in the mid-seventies," said Dr. Thompson.

"In this area cattlemen are reducing their herds. Grain prices are high and some are suffering severe losses."

When the weather is hot and dry, the range capacity is gradually decreased. Drought affects the availability of grain and because of high demand and low supply, the price goes up. Farmers begin to sell their cattle to diminish the strain on their range and their operating costs. This liquidation of herds floods the market with beef and the price drops-sometimes drastically. Ranchers market the cattle at lighter weights to save on feeding costs. Because the cattle are smaller, more are needed and the liquidation continues until the range land can support the remaining cattle. The liquidation is finally halted by periods of cool-wet weather.

The range improves during the cool-wet cycle and ranchers send fewer cows to market.

"If the range is good, farmers increase their herds. They hold back female breeding stock. Fewer cattle are on the market and the price goes up," Thompson said. "If there is a series of good range years, the number of cattle increases."

Before the drought of the 1950's, cattle numbers were continuing upward to the 100 million mark. The range was such that it was able to support the herds without taxing the normal feed resources.

But if feed is plentiful, ranchers can afford to hold their cattle for longer periods of time. This causes a build-up of heavier cattle and because of these heavier animals, fewer are needed. The herds are built-up until another period of drought forces the farmers to sell again.

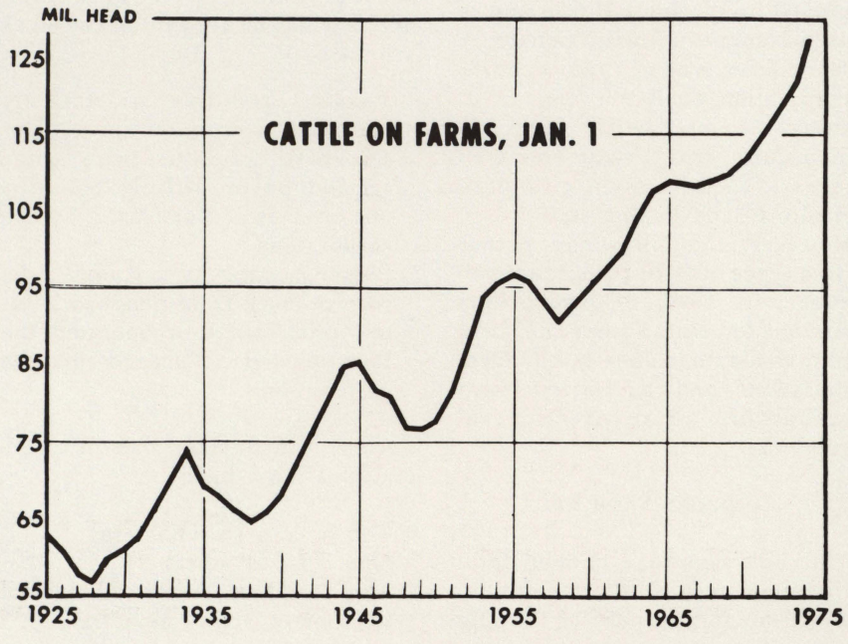
Thompson said that cattlemen know about the cattle cycle. He added that what is needed is more

Dr. Louis Thompson, associate dean of agriculture at Iowa State, has been observing the relationship between cattle cycles and weather patterns since the mid-sixties. The two patterns seem to have a definite relationship.

understanding of the cycles.

Economists understand the effects the cattle cycle has on the general economy, but it takes time to apply theory to the practical problems.

Weather is cyclical and Thompson has observed the correlation between the periods of hot-dry summers and herd liquidation. The periods of cattle build-up coincide with the cool-wet cycle. The length and severity of the cycles vary but they alternately repeat themselves idefinitely. Although the warm-dry periods are difficult for cattle producers, they also act as a natural check for herd sizes.



The number of cattle on farms does decrease when there are drought conditions present. The United States suffered under drought in the mid-thirties, mid-fifties, and lately in the mid-seventies.

Who Should Own Farmland?

by Bob Anderson

Imagine crossing the vast, midwestern prairies in 1840 by a wagon pulled by oxen. Pioneers traveled for days, knee deep in prairie grasses, often saying there was enough farm land between the Mississippi and the Rockies for whoever wanted to homestead it.

But this isn't 1840. Oxen have been replaced by diesel tractors and native prairie grasses have been replaced by high grade alfalfa. Land isn't being replaced by anything. We've got all we're ever going to have.

The question now is, who should be allowed to own and control our farm land? Farmers, businesses, corporations, investors,—who?

Several states, including North and South Dakota, Minnesota, Wisconsin, Kansas, and Oklahoma have imposed significant limitations concerning the ownership of their farm land.

Iowa is now trying to follow suit. A bill has been introduced into the Iowa Legislature that would limit certain types of farm corporations in Iowa.

The bill, House File 215, has been approved by the Iowa House and is now in committee in the Senate.

The bill reads as of "July 1, 1975, a corporation shall not engage in farming, or directly or indirectly own, acquire, or otherwise obtain an interest . . . in any title to agriculture land in this state."

However, the bill would permit certain types of farm corporations to operate in Iowa. Corporations permitted to own and operate farm land in the state include family farm corporations and authorized farm corporations, there are several exceptions.

Corporate Farm Bill

The bill says a "Family farm corporation means a corporation, founded for the purpose of farming and the ownership of agriculture land in which the majority of the stockholders are:"

1. Persons related to each other within the third degree relationship of civil law,
2. Children or grandchildren of deceased family members, that have received stock in the farm corporation,
3. Persons acting as a trustee who receives stock in the corporation from a child or grandchild as described in number two above.

Also 80 per cent of the corporations gross revenues from the last three years must come from farming.

Also, at least one of the corporation's majority stockholders is a person living on or actively operating the farm owned or leased by the corporation, or a disabled or retired person who once operated the farm owned or leased by the corporation.

The bill says an "Authorized farm corporation means a corporation, founded for the purpose of farming and the ownership of agriculture land in which 60 per cent of the stock is held by:"

1. Persons residing or actively operating a farm,
2. Disabled persons who once resided on or actively operated the farm owned or leased by the corporation,
3. Persons acting as a trustee who receive stock from people who at one time owned or operated the farm owned or leased by the corporation.

Also, authorized farm corporations must have:

1. Ten or less stockholders,
2. One class of stock,
3. The stockholders are all natural persons or acting as a trustee,
4. 80 per cent of the gross revenues of the corporation, over the last three years, comes from farming.

Exceptions to the bill include research farms, agriculture land held by a trust company, or agriculture land acquired by a corporation for immediate or potential use in nonfarming purposes.

(The bill is quite lengthy, thus some stipulations have been left out of this story. We strongly recommend you to consult an actual copy of the bill for a complete reference.)

Farming corporations which do not meet the bill's specifications, would be forced to dispose of their land by July 1, 1980.

Many Iowa residents wish to see the bill passed into law. They feel farming corporations could eventually push the family farm to extinction.

But Dr. Neil Harl, a professor of economics at Iowa State University and an expert on organization of farm business, says evidence is lacking that farm coporations will drive the family farm to extinction.

"To date, the giant farm corporations simply have been unable to compete successfully with the family farm in the Midwest. In fact, large firms such as CBK, Gates Rubber and Ceres Land Company that entered agriculture production several years ago, though not in Iowa, have not fared well."

Another common belief is that corporate farming hinders both small farm, owner operators and young men that want to enter farming.

Dr. Harl doesn't agree. "The greatest threat to the smaller, owner operator is the larger, family operation in the neighborhood that is growing rapidly as land becomes available.

"Outside corporations, in my opinion, pose relatively little threat

to the smaller farmer."

He also says that farms will continue to increase in size unless one of the following four possibilities takes place.

1. A substantial tax is imposed on the manufacturing of large farm equipment.
2. It becomes a crime to manufacture large farm equipment.
3. Labor becomes cheap relative to capital again.
4. The level of management ability in farming declines from present levels.

It is unlikely that any of these will ever take place.

The chart shows us that as of 1969, corporate farming interests controlled a little over one per cent of Iowa's farm land or 382,795 acres.

The chart also shows that corporate farms, with more than 10 shareholders, were nearly 3½ times larger than the individual or family farm.

The largest incorporated farm in Iowa today is the Amana Society. The Amana Society incorporated their farms more than 40 years ago and now control about 25,000 acres. Their farm would be exempt from the proposed Iowa bill.

The public won't know until the 1974 agriculture census has been completed and the data processed whether non-farm coporations have increased or decreased in Iowa since 1969.

But Dr. Harl says, "Since 1969, I have not seen evidence that non-farm corporations are moving into Iowa agriculture."

Dr. Neil Harl is a professor of economics at Iowa State University and an expert on organization of farm business. He is also a member of the Iowa Bar Association.

ORGANIZATION OF IOWA FARMS

The following chart, from the 1969 census of agriculture, shows the organization of Iowa Farms.

	No.	Total Acres	Average Size
Individual or family	105,087	26,514,676	252.3
Partnership	16,965	5,378,611	317.0
Corporation, including family owned			
Total	621	382,795	616.4
Ten or fewer shareholders	553	325,181	588.0
More than ten shareholders	68	57,614	847.3
Other	822	192,123	233.7
Total	124,116	32,851,000	264.7

Currently, there are two major types of farm corporations in Iowa. They are farm operating corporations and the family farm corporation.

The farm operating corporation buys agriculture land, owns the resources, and hires employees to operate the farm.

The farm corporation used most in Iowa is the family farm corporation, Dr. Harl says.

"The reason for this is that farmers are able to give farm shares to their wife and children. This lowers inheritance tax if the farmer should die. This type of farm corporation actually keeps the family farm unit together by keeping the farm assets together."

Iowa's Corporate Farm History

Corporate farming has entered Iowa agriculture before. William G. Murray, Iowa State University economics professor, says the following comments about the history of corporate farming in Iowa, in the July, 1969, issue of **Iowa Farm Science.**

Murray says, "The first concern about corporations in Iowa's farming history occurred as the state was being settled. In the mid -1800's, some individuals and companies purchased large blocks of land from the government for $1.25 per acre. Later, the railroads which had received large acreages from the government to encourage rail development, disposed of large blocks of land."

"During the 1850's, Horatio W. Sanford of Dubuque bought 250,000 acres; Easley and Willingham of Halifax County, Virginia, bought 146,000 acres and Brown and Ives of Providence, Rhode Island, bought 78,000 acres. In the 1870's, units like the Wheeler and Cook ranches in Sac County came into being.

"In most cases, the large holdings were re-sold to settlers who converted the prairie to family-size farms."

"Of all the large land holdings in this early period, only one survived as a large-scale corporation farm. This was the Wheeler Ranch, later known as the Adams Ranch, then the Lakin Ranch, and now the Shinrone Farms," says Murray.

Possible Outcome From Bill

A sidelight of the bill has been noted by Dr. Harl. He says, "If corporations are not permitted to own land that is rented to tenants, as appears to be the case in the Iowa bill, it could have a impact on the amount of land available for rent."

"Maintenance of a substantial amount of land in ownership by individuals, or firms other than the tenant as the operator of the land, is extremely important to individuals endeavoring to get started in farming."

"Without land to rent, an individual wishing to become established in farming would face an almost impossible financial burden," Dr. Harl says.

—Continued on Page 28—

Narrowing the Gap . . . New Beef Grading

by Connie Pease

If proposed United States Department of Agriculture (USDA) beef grading changes are adopted, probably less than 10 per cent of the total beef production would be affected.

That is the consensus of an interdisciplinary committee of animal scientists and economists at Iowa State University.

However, after approximately 3,000 comments were received by the USDA, it was found most consumers were against the new beef proposal with a few suggesting modifications. The more than usual number of comments were illustrative of the heavy interest and controversial character of the proposal.

Producers voted heavily for the change while packers went along on part of the plan, but took serious exception to the idea of required grade yielding and narrowing of the good grade quality standard.

The major beef quality grades which consumers usually see at present are labeled prime, choice, good and standard. The beef grading is currently determined by a combination of different factors including marbling or the fat which is deposited in the connective tissue within the muscle, animal maturity, and conformation or shape of the animal.

The USDA says marbling improves the eating quality while maturity has the opposite effect. That's why present grades require more marbling as animals get older. But some research shows little difference in eating quality or palatability due to maturity in cattle under 30 months of age.

William Zmolek, Iowa State University extension beef specialist said, "Today with the cost of energy so high we don't need to put on as much marbling as in the past. To do this the producer should go slower in the feedlot by feeding a level of corn silage which would give more production of beef per acre.

For cattle under 30 months, the new proposal would, in effect, slightly reduce the marbling required to reach each grade.

Cattle over 30 months of age still require increased marbling to reach a given grade.

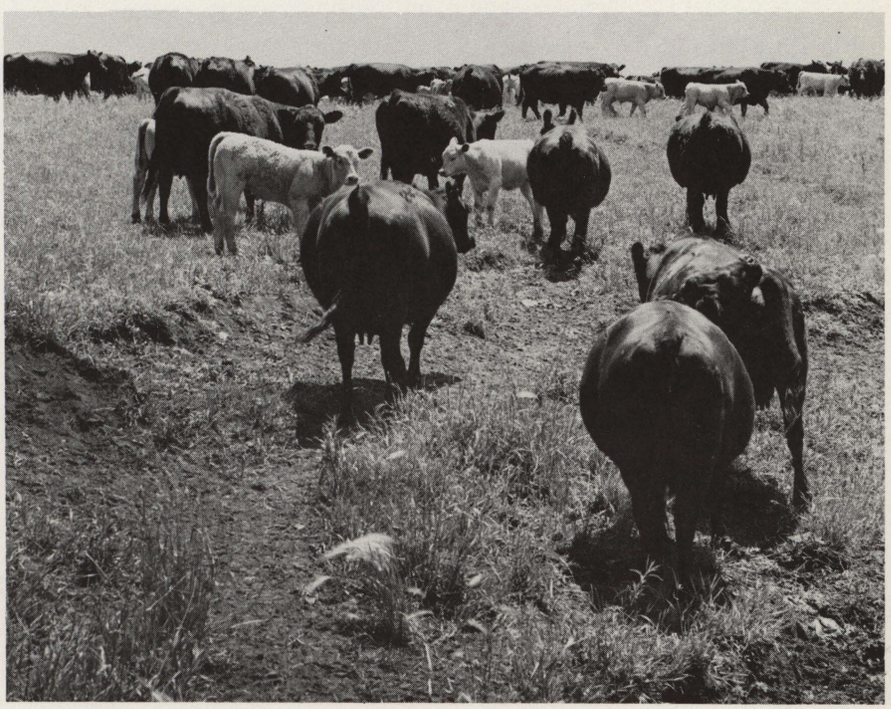
The Iowa State University committee says that the Iowa beef industry and consuming public would be affected if these proposed changes in the beef grading system were adopted. However, this statement does not advocate support or rejection of the proposed revision. This decision to support or oppose the adoption should be based on an understanding of advantages and disadvantages that should be expected as a result of the adoption of the proposed revision.

The greatest affect of the changes, the committee believes, would be seen in cattle going to market at 24 to 30 months of age. These cattle could reach the choice grade with less marbling. But, these are not the cattle modern producers have been aiming for, as breeders now attempt to produce cattle reaching market weight at 15 to 18 months of age.

For consumers the change will be minimal. "Consumers won't know the difference in palatability," said Robert Rust, extension meat specialist and co-chairman of the Iowa State University committee investigating the proposal.

Bud Nichol, owner of Carriage House Meat and Provision Company in Ames says, "Most Iowans are against the proposal because the corn belt feeder would lose the advantage of feeding cattle to high choice grade."

He says that in the short run the change could reduce the cost of beef because farmers would reach choice grade sooner because of the lowered marbling requirement. "Society will benefit in the long run from a grade



The greatest effect of the proposed beef grading changes would be seen in cattle going to market at 24 to 30 months of age.

change. We have lived on a high class diet for sometime now and won't be able to continue to live in such luxury. The consumer must change to a leaner quality beef."

Much of consumer comment received by the USDA reflected that people are uneducated about the grading system and misunderstand it. One consumer wrote that the only reason for changing the grading system is to take away the consumer's choice in picking out the grade of beef he wants to buy and to allow the producer to get as much for a cheaper produced meat as for more expensively produced meat.

Some consumer comment, however, reflected some knowledge of the grading system and the beef business. One consumer agreed that we should all be eating more inexpensively produced meat in terms of the amount of feed to produce a unit of meat.

Zmolek says that the consumer wants more beef and less marbling. The producer has to supply enough meat so people can afford the price. "Take a look at marbling. To produce good marbling large amounts of feed are required and that is what costs a lot."

The Iowa State University committee lists several weaknesses which would remain in the present system, even if the new proposal is adopted. They are: production of efficient, fast growing cattle isn't encouraged; assigning yield grades is imprecise because it is based only on visual appraisal, not actual measurements; the role of marbling and maturity as used in beef grading is not supported by modern-day research; subjectivity in assigning quality or yield grades is not reduced and will continue to present problems.

The committee isn't entirely negative in its approach to the changes. Some of the advantages included in the proposal are:

—The importance of marbling would be slightly de-emphasized as a determinant of quality grade. Marbling has been shown by research to have little effect on palatability.

—Costs of producing each grade of beef should be reduced because it could take less feed to bring cattle to the choice grade, especially if they normally reach market weight at 24 months or older.

—Conformation, an attribute unrelated to palatability, would not be used in assigning grades.

—Mandatory yield grading could reduce marketing costs, increase competition, and improve price signals to producers, providing yield grading accurately describes cutability differences.

David Topel, associate professor of animal science at Iowa State University, agrees with the elimination of conformation. "The conformation requirement now helps pull the exotic breeds up to a higher grade and by dropping conformation completely some of these breeds of cattle will be pulled down to the next lowest grade. This will have a financial influence on the producer with the difference of good versus standard grade prices."

Rust, who elaborated on the proposal, says, "The chief disadvantage would be the effect on production of some of the 'new' breeds. In the current grading system which takes conformation into account, many heavily-muscled cattle are able to reach the good grade because conformation compenstates for a lack of marbling. Not so with the new proposal. These cattle would be relegated to the standard grade."

"The overall impact of the grade change is being blown out of proportion." Topel believes this is true because a lot of false information has been given on the subject.

Topel says, "The grading system needs a complete overhaul and not just an attempt to change bits and pieces. Like other grade revisions of the past, the current proposal is a patchwork of an existing and perhaps outdated system."

Soybean Cheese Anyone?

by Chuck Kuster

Already on the grocery shelves are soybean bacon chips, turkey loaf and hot dogs. What next? Perhaps dairy products if the research of an Iowa State food technologist pans out.

Dr. Carmen Rey, associate professor of food technology is working on soybean cheese and yogurt. She's enthusiastic about their possibilities. Dr. Rey says that the products promise to be cheaper than existing products and tasty as well. Some soybean products have been labeled as tasting bland, but this is not the case according to the technologist.

"The taste response to our yogurt and cheese has been very encouraging. We put our products through test panels of food technology students and found that the flavor was rated tremendously high," she said.

Besides being of at least equal taste and cheaper, too, the new soybean products are less wasteful. The new products are made with the by-products (whey) of the regular type of cheese and yogurt. The researchers take the leftover whey, add soybean protein to replace that protein lost to the previous batch of cheese or yogurt, and start making more of the product.

"The purpose in adding soluable solids (soybean meal) is to regain the normal level, extend the mixture with some milk to aid in coagulation and at the same time add extra nutrients," said Dr. Rey. This saves the nutrients that remain in the whey solution and makes them available to the next batch of cheese or yogurt.

"We have processed yogurt all the way from normal milk up to the point where there was no milk added to the mixture at all," said the technologist. The combination was very acceptable up to 60 per cent soy and whey and 40 per cent normal milk. Any lower content of whole milk resulted in a jell of very weak consistency likening that of buttermilk.

Another reason for the manufacture of soy cheese and yogurt would be the great potential benefit it could be to underdeveloped areas where protein and nutrient consumption is low.

Dr. Carmen Rey, associate professor of food technology, is experimenting in making cheese and yogurt out of soybeans. The products are supposed to be cheaper than existing products and just as tasty. Another important feature of these new products is that they will be less wasteful.

Presently, a mixture of just whey and soybeans without whole milk is being tested for dehydration capabilities, said Dr. Rey. If the experiments are successful, the soybean products could be mixed and dried in one area and easily shipped to another. "It would be an excellent supplement for school lunches where the protein consumption is low," said Rey. She suggested that the drink could be easily flavored which would erase any taste problems and add food value at the same time.

Soybeans were the logical choice to provide protein for the mix because of their high content of a good quality protein. Soybeans are low in only one essential amino acid, methionine. This deficiency is not expected to cause any problems because methionine is available in many other foods in more than sufficient quantities.

The researchers have encountered problems in the preparation of soybean meal. "A new milling unit has solved the problem we had in grinding the soybeans into fine enough particles," said Dr. Rey. The main difficulty now is finding a balance between the heat treatment that you must give to the soybeans to increase digestability and the temperature at which protein is destroyed. If the heat is too low, the soybeans make the mixture bitter and if the temperature too high, some of the nutrient value is destroyed. There has also been a problem in removing all insoluable material from the ground-up soybeans. "We need a press filter, but until we get one, we'll just have to use cheese cloth and elbow grease," said Dr. Rey.

If meat prices rise to the point that the consumer can no longer afford meat as a protein souce, and if livestock returns become so poor the farmer can not afford to raise them, perhaps there will be an increase in the usage of soybean protein products. If a trend towards eating less meat develops, perhaps the stickers on the bumpers of farmers' pickups will change from "Eat Beef" to "Eat More Cheese."

Dr. Rey's products are made with the by-products (whey) of the regular type of cheese and yogurt. Soybean protein is then added to the whey to replace the protein lost to the original piece of cheese.

—Who Should Own Farmland?
Contined from page 23—

Will Bill Be Passed?

Dr. Harl predicts that the proposed bill to limit corporate farming in Iowa, will not pass the Iowa Senate.

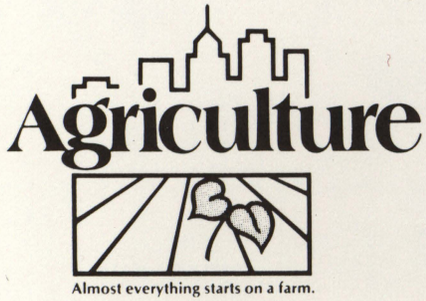
He also predicts instead that the Senate will ask for a "reporting bill."

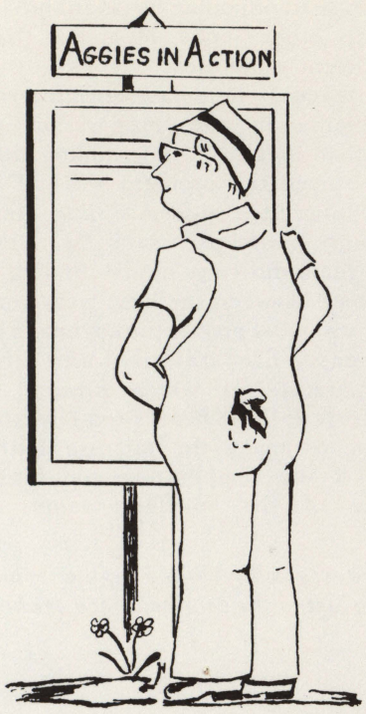
The reporting bill will result in a more accurate number of incorporated farms in Iowa and will also list some of their major characteristics.

"I would anticipate that the data will portray a gradual shift toward use of the corporation by larger family farm businesses. (for inheritance tax purposes.) I would be surprised if it revealed a significant increase in involvement by large, non-farm corporations in agriculture production."

Are corporate farming interests bad? Will they push the family farm to extinction? People really don't know. Dr. Harl says more information about corporate farming is needed.

But there seems to be a general consensus that the maintenance of some form of the family farm in Iowa is extremely important to Iowa's economy, Iowa's lifestyle, and Iowa's farmers.





Alpha Zeta

Alpha Zeta held its annual spring banquet at the Imperial Inn in Boone, April 20. Featured speaker was Lee Griffin, sales promotion manager for Land O'Lakes Agricultural Services in Fort Dodge, Iowa.

May 10 was selected as the date for a service project. Children from either Des Moines or Ames will be taken to an area farm for a tour.

May 15 was also chosen as the date for Alpha Zeta's annual spring hamburger fry.

Ag Business

New ag business club officers are: President, Craig Heineman; Vice President, Mike Whipp; Secretary, Dan Pronchetti; Treasurer, Fred Green; Ag Council Rep., Jim Borel; Publicity, Larry Helling; Historian, Pat Meier; and Advisors, Ed Longfellow and Carl O'Connor.

Spring ag business banquet was April 13. Clarence Pickard, past assistant to the dean of the college of agriculture at Iowa State, was the featured speaker.

The club had an open house display for Veishea.

They are also helping Dr. Murray with a survey of North Dakota townships to see what the land was appraised for when the government got it from the Indians. This is for a court case.

Agriculture Mechanics

The new president of the Ag Mechanics is Rick Holtz. Since the club is new they are still spending much of their time on organization. Special plans for spring include a picnic with the faculty and Veishea activities.

Block and Bridle

Several members of the Block and Bridle Club participated in a horse show in Des Moines April 18-20. They also had a Spring judging contest there on April 26. A barbeque is planned for May 3 according to president Roxanne Beale. A national meeting will be held at Colorado State University July 27-30.

Farm Operations

The Farm Op Club took a trip to Webster City April 19 to visit the Felco Company there. Also in April they helped Ames' senior citizens with spring chores. May activities include Veishea and a trip to the Ledges State Park. The club's president is Chauncey Watson.

Forestry and Outdoor Recreation

The Forec Annual Spring Game Banquet was held March 20. New president Charles Scott says most of the club's spring activities are centered around Veishea.

Horticulture

A seminar on corsage making was held April 15 so the Horticulture club members would know how to make corsages for Veishea. April 17-20, several members visited Denver and a National Horticulture Conference. A camp out was held April 25. Veishea activities include selling corsages and garden plants and tours through the greenhouse. The new club president is Tom Sullivan.

Landscape Architecture

The new LASO president is Kent Meyer. Weekly meetings were held in March and April to plan for Veishea.

Urban Planning

SOUP is working on their Veishea display which will be an orientation to urban planning. It will include a planning project, photographic essay and a planning game.

Comeback of the Old Grey Mare

by Patricia Miller

With the advent of the internal combustion engine, Man put the horse out to pasture. But now Man has again turned to the horse—this time as an escape from his mechanized world.

The American Horse Council estimates that there are now about 8 million horses in the United States. This is about half of the horse population at the turn of the century, before the birth of the automobile.

But the number of horses is on the increase. It has doubled since 1960. What is the cause for this new popularity of horses?

"Society has developed to the point where more people have the financial means and time for sport," said Dr. James Kiser, Associate Professor of Animal Science at ISU.

"In recent years," said Dr. Kiser, "the number of work hours has decreased and there is more leisure time. People need an outlet and for some, horses fit that need."

Dr. Kiser said that most of the horses now are of the light variety, such as Quarter Horses or Arabians, and ponies. This contrasts with the majority of heavy work horses and mules of the early 20th century.

The most popular light horse is the Quarter Horse. Belgians replaced Percherons and other grade horses as the favorite heavy work horse.

"Light horses and ponies are used for pleasure, driving, show and a variety of sports," said Kiser.

These sports include jumping, hunting, rodeo and racing.

But the horse is no longer just a rich man's toy. According to a 1970 American Horse Council survey, 60 per cent of all horse-owning families made less than $9,000 annually.

In the Ames area, a mature horse (three-year-old) sells for anywhere from $200 and up. The average price for mature horses is around $500. However, these prices depend on the individual horse. Age, breeding and training affect the price of the animal.

In some areas, the work horse is still predominant-performing tasks like those of the early 1900's. Around Iowa City, Cologna and Independence, Iowa, horses continue to be the main form of transportation and carry the burden of the field work.

The increase in the number of horses is visible in the enrollment of 4-H members in horse-oriented projects. Fifteen years ago, 4-H members were involved in 30,000 horse projects. Since then, the number of projects has grown to over 320,000.

Dr. Kiser said that on the Iowa State University campus there are two groups that deal with horses. The Block and Bridle Club is the Animal Science departmental club. Members choose an interest area such as cattle, sheep or horses. Kiser said that a number of the members go on field trips to various horse farms in the Midwest.

The Rodeo Club promotes rodeo sports like calf roping and wrestling, and barrel racing. Kiser said that a few members have their own horses at Iowa State University, but keep them off-campus.

The University maintains a mixed herd of Quarter Horses and American Saddle Horses. At present, the herd consists of 50-60 head. These horses are primarily for instructional purposes. Animal Science 115 and 315 and PEW 149 use the horses for demonstrations and instruction.

Some of the animals are taken on state-wide demonstrations and others are used for clinics and on field days. Kiser said that the animals are in constant use because there is a great demand for the horse-oriented courses this quarter.

Many people enter the horse industry as another business venture. The American Quarter Horse Association reported that in 1974 there were more than 1,000,000 Quarter Horses in the United States. The growth of the industry can also be seen in the transfer of ownership-which is the barometer of any industry. In 1974, 150,000 quarter horses were involved in ownership transactions.

"The light horse industry is on the increase around Ames, but most herds have only a few head. The number of mares per farm is between one and four," Kiser said. "There are no large horse farms in this area."

Kiser also said that state and breed associations promote horses and that there are a lot of horse shows in the Ames area. According to the American Horse Council, horse events drew 105 million spectators in 1973.

Many saddle clubs conduct open horse shows where any breed is accepted. Some shows concentrate on one breed such as Arabians or Shetlands. Western style riding is the most predominant style in the Midwest, but in the Ames-Des Moines area there are two groups that sponsor English hunting and jumping events.

As people have more leisure time on their hands, the search continues for an outlet to escape the pressure of our complex society. Many have turned to the horse because of its ready availability and versatility. The horse is once again being brought in from the pasture.

Over the Brew

by Dave Drennan

A conversation in a local Ames bar between two Iowa State students.

Al Aggie: "I'm buying the Bud."

Eddie Editor: "You don't remember what I told you last winter, do you?"

AA: "No, what did you say?"

EE: "A beer at Iowa State is called a draw."

AA: "Oh yeah, that's right."

EE: "We started our conversation last winter almost the same way."

AA: "All right, I'll ask the first question. What's new with you?"

EE: "Well I was surprised to find out that Iowa State has an active part in the Rural Development Act of 1972 and that the college receives approximately $92,000 for their efforts."

AA: "What do they do with that money?"

EE: "You can read my story in this issue."

AA: "How's job hunting going for you?"

EE: "I knew you'd get to that sooner or later. I found out that I'm one of two agricultural journalists graduating this quarter and the other guy has a job already. There were only three others that graduated this year. I've got about five good leads right now and am just waiting."

AA: "It must be nice to have your choice of jobs. Maybe I should change majors."

EE: "You said that last winter. I would if I were you. Only two high school seniors have indicated that they want to major in agricultural journalism next year."

AA: "But I don't like to write."

EE: "There's other options besides writing. You can go into an advertising, editing, layout, photography or public relations. If you've a farm background or agricultural interests, Iowa State can teach you the rest. You can also minor or double major in agricultural journalism."

AA: "Wow, I didn't know there was all of those options."

EE: "You do now."

AA: "I wish I was graduating now like you. Is there anything you'll miss about college?"

EE: "I sure won't miss dorm food, long meetings, $5 add-drop fees, crowded bars, studying, tuition increases, long waiting lines at ticket counters or for football games and the hassles of adding or dropping a class."

AA: "But what will you miss?"

EE: "The people. I've met so many people through ag council, alpha zeta and places of residence. The ag clubs need people to make it happen. If you're active in your club, it can lead to many honors and it helps in getting a job."

AA: "Will you miss writing for the **Iowa Agriculturist?"**

EE: "You bet. It feels like a part of me and I've enjoyed working with my staff. There's no better practical experience and no replacement for it. I've been writing for this magazine for seven quarters now. There's a song entitled "Rock is my life and this is my song" that I like to put in my terms and say "Agriculture is my life and this is my job."

AA: "What does leaving make you feel like?"

EE: "Well, I was walking toward Beardshear from Curtis the other day and I looked up at the east side of Beardshear where it reads Iowa State University. I felt like I was defeating a worthy opponent and that I was finally winning. I guess it's just a feeling of accomplishment or senioritis."

AA: "When you come back as an alum, you can buy the draws."

EE: "You mean Bud, don't you?"

AA: "Time to be going so I can rack."

EE: "Me too. This is the last thing I'll ever have to write for the **Iowa Agriculturist** so I want to make it good. I hope Al Aggie and Eddie Editor have added something to somebody's life. I know they've enjoyed serving you."

Together, we serve.

As a farmer-owned cooperative, there's only one reason for our existence: To serve agriculture.

One of the most important ways we serve is with ongoing research. Very often, this brings our researchers to the Iowa State University campus. ISU and Land O'Lakes researchers have worked closely together in the past. We look forward to continuing this fine relationship.

We are now in a position to serve agriculture even better. The Answer Farm, one of the newest, most complete research and demonstration facilities in the country, is now operating on 535 acres near Fort Dodge.

Our policy is, and always has been, to work with land grant universities such as ISU. Because no matter who comes up with research breakthroughs, they help all of us who serve agriculture serve even better.

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